



Aeronautical Systems Center

U.S. AIR FORCE

Dominant Air Power: Design For Tomorrow...Deliver Today



ASC/WNUV **Projects Overview** **2011 APBI**

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Mr Richard E. Keefer

ASC/WNUV

DSN: 986-4810

richard.keefer@wpafb.af.mil

Integrity - Service - Excellence



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Aircrew Performance Branch

Dominant Air Power: Design For Tomorrow...Deliver Today

Mission Statement

Acquire, sustain, and analyze the best human-centered equipment at the right cost to maximize warfighter capabilities through the focused effort of unique multi-disciplined experts. We are with our Airmen everyday...until they come home.

Vision Statement

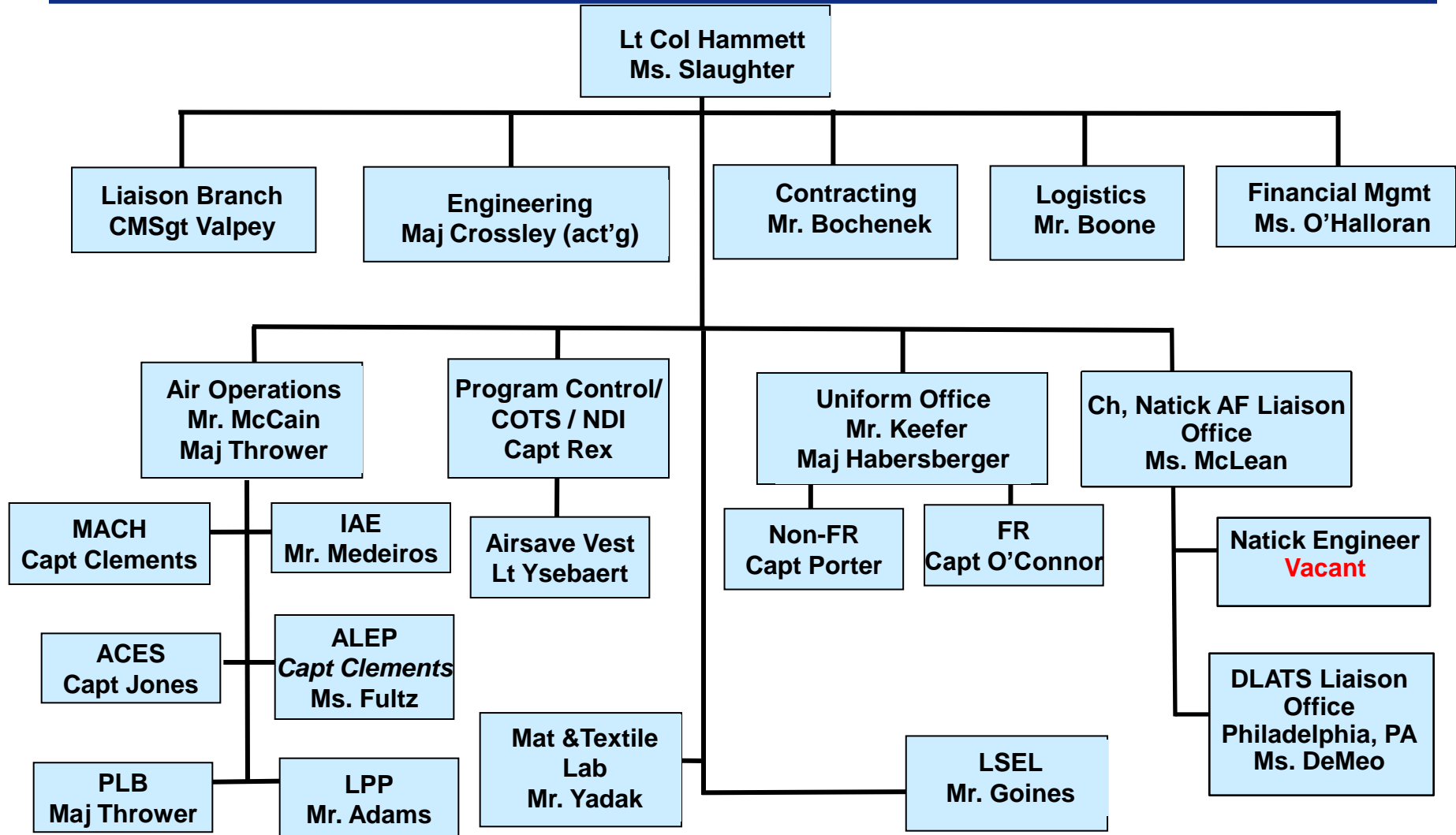
The leading expert in human-centered systems exploring every opportunity to improve and sustain warfighter capabilities.

I n t e g r i t y - S e r v i c e - E x c e l l e n c e



Aircrew Performance Branch

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Aircrew Performance Programs


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Modular Aircrew Common Helmet (MACH)	Program Status	System Concept
<ul style="list-style-type: none"> • Develop modular helmet adaptable to multiple missions. • Reduce logistical footprint by minimizing DOD helmet configurations. • KPPs: <ul style="list-style-type: none"> • Stability • Equipment Compatibility • Force Protection 	<ul style="list-style-type: none"> • SRR/SFR completed Mar 08 • PDR completed Jun 08 • CDR completed Feb 10 • MS C 2QFY12 • LRIP 2QFY12 • FRP 2QFY13 	
Aircrew Laser Eye Protection (ALEP)	Program Status	System Concept
<ul style="list-style-type: none"> • Protect eyes from the effects of threat and hazard lasers while maintaining visual acuity required for mission accomplishment. • KPPs: <ul style="list-style-type: none"> - Wavelengths – classified - Optical Densities – classified • Block 3 will incorporate laser eye protection into visor vs. specs 	<ul style="list-style-type: none"> • JCAS spectacles fielded Jul 2010 • Block 2 FDE start Apr 10 • LRIP Phase 2 award Dec 10 • FRP projected award Oct 11 	<p>ALEP Block 2 (3 variants)</p> <div>  <p>DAY VARIANT</p> </div> <div>  <p>NIGHT VARIANT</p> </div> <div>  <p>JHMCS VARIANT</p> </div>



Aircrew Performance Programs



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Advanced Concept Ejection Seat (ACES)	Program Status	System Concept
<ul style="list-style-type: none"> • Develop a enhanced ejection seat to address the safety and maintenance limitations of the current ACES II seat structure in the B-2. • System Attributes: <ul style="list-style-type: none"> • Improved safety • Expanded aircrew weight range • Reduced maintenance 	<ul style="list-style-type: none"> • FY10 \$1.9M Congressional Add • FY11 - <i>No Funding</i> • Oct 2010 – Aug 2012 (est.): Complete Phase I Qualification Testing • Jan 2011: Initial Design Review conducted at Goodrich Corp. facility in Colorado Springs, Co. 	
USAF Uniform Office		
<ul style="list-style-type: none"> ▪ To sustain/update approved AF uniform items & introduce new items (as mandated by CSAF and the AF Uniform Board and vetted through AF/A1 & AF/A4) ▪ Research requirements, design patterns, fabricate prototypes, test and sustain ▪ Develop test plans, conduct/analyze field test data, evaluate and report ▪ Create System Requirements Package (SRP) 		 <p>Airman Battle Uniform</p>



Aircrew Performance Programs


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Fire Resistant AF Equipment (FIRESAFE)	Program Status	System Concept
<ul style="list-style-type: none"> Identify, qualify, and procure fire resistant (FR) ensemble options for USAF forces in the field. KPPs: <ul style="list-style-type: none"> Burn/Thermal Protection Moisture Wicking Light Weight/Durable High Air Permeability Water Resistant n-IR 	<ul style="list-style-type: none"> 164K ABS / 112K ABEs to AFCENT Joint Service initiative <ul style="list-style-type: none"> Implement FR ACU OCP in AOR FR Undergarments <ul style="list-style-type: none"> Updating approved list Flyer's Jacket <ul style="list-style-type: none"> Prod of existing fiber ends 2011 	
Integrated Aircrew Ensemble (IAE)	Program Status	System Concept
<ul style="list-style-type: none"> The IAE will enable aircrew to focus on operating the aircraft without the distractions, mission degradation, or aircraft mishaps associated with current flight equipment KPPs: <ul style="list-style-type: none"> Thermal Stress Mobility, Bulk Acceleration Protection Ejection 	<ul style="list-style-type: none"> Contract Award Nov 11 SFR Jan 11 IBR Jul 11 PDR Aug 11 CDR Mar 12 	



Aircrew Performance Programs

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<i>Low Profile Parachute (LPP)</i>	<i>Program Status</i>	<i>System Concept</i>
<ul style="list-style-type: none">• To provide AFSOC with access to a safe-to-fly certified emergency bailout parachute system able to be worn at all times by gunner and other back end aircrew members of the A/C-130.• KPPs:<ul style="list-style-type: none">• FAA Certification• Integration• Physical Characteristics• Egress Conditions	<ul style="list-style-type: none">✓ Requirement Rec'd May 07✓ Market Research May 09✓ Industry Day Feb 10✓ Acq Strategy Approval Jan 11✓ RFP Release Apr 11• Contract Award Jun 11• Operational Test Feb 12• Human Factors Eval Mar 12• Safe-to-Fly Cert Apr 12	



Aircrew Performance Programs

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USAF aircraft currently fly 2 million hours per year

We're on-board with every warfighter every second
of every mission ...

maximizing combat power and
increasing survivability



Every Airman...Every Aircraft...Every Day!